[0073] If the method **1000** determined that the predetermined level of overheating was reached in the decisional step **1020**, the method **1000** then determines if the level of overheating is severe in a decisional step **1030**. If the level of overheating is severe, the method **1000** prevents the mobile device from using the USB connector in a step **1040**. In one embodiment, preventing the use of the USB connector includes informing a USB controller of the mobile device not to allow the USB connector to be used, or used for charging. In another embodiment, preventing the use of the USB connector includes decreasing a level of resistance between an identification line and a ground line of the USB connector in the mobile device. This results in an indication to the USB controller that the mobile device is a device type that is not capable of accepting a charging current via the USB connector. See FIG. **4** for a description of the data lines and pins of the USB connector of the mobile device. In yet another embodiment, preventing the use of the USB connector in the step **1040** may be temporary and further use of the USB connector may be allowed after a manual reset or after a predetermined period of time. In an alternative embodiment, if the method **1000** determined that the predetermined level of overheating was reached in the decisional step **1020**, the method **1000** proceeds directly to a step **1060**.

[0074] If the method **1000** determined the level of overheating was not severe in the decisional step **1030**, the method **1000** decreases a level of resistance between an identification line and a ground line of the USB connector in the mobile device in a step **1060**. In one embodiment, decreasing the level of resistance includes decreasing the level of resistance to a predetermined level to indicate to the USB controller that the mobile device is a device type that is not capable of accepting a charging current via the USB connector. In a related embodiment, the device type that is not capable of accepting a charging current is a USB On-The-Go A device. Background information concerning USB port descriptions and device types is described in the Battery Charging specification listed previously. In yet another embodiment of the present invention, the step **1060** of decreasing the level of resistance includes activating a pull-down resistor interposed the identification line and the ground line of the USB connector.

[0075] In one embodiment, the method **1000** causes an interrupt on the voltage line coupled to the USB connector of the mobile device in a step **1070**. Interrupt on the voltage line includes dropping the voltage on the voltage line to or below a predetermined voltage level, waiting for a predetermined period of time and then restoring the voltage on the voltage line to a normal level. An interrupt on the voltage line coupled to the USB connector will cause the mobile device to start a detection renegotiation procedure to determine what type of USB port is coupled to the USB connector of the mobile device. Next, the method **1000** returns to continue sensing the level of heating in the step **1010**.

[0076] If the method **1000** determined that the level of heating did not reach the predetermined level of overheating in the decisional step **1020**, the method **1000** increases the level of resistance between the identification line and the ground line of the USB connector in the mobile device in a step **1050**. In one embodiment, the step **1050** further includes increasing the level of resistance if the level of resistance was previously decreased. Increasing the level of resistance between the identification line and ground line to the original level results in an indication to the USB controller that the mobile device is a device type that is capable of accepting a charging current via its USB connector. Next, the method **1000** returns to continue sensing the level of heating in the step **1010**.

[0077] While the methods disclosed herein have been described and shown with reference to particular steps performed in a particular order, it will be understood that these steps may be combined, subdivided, or reordered to form an equivalent method without departing from the teachings of the present invention. Accordingly, unless specifically indicated herein, the order and/or the grouping of the steps are not limitations of the present invention.

[0078] Those skilled in the art to which this application relates will appreciate that other and further additions, deletions, substitutions and modifications may be made to the described embodiments.

What is claimed is:

1. An apparatus comprising:

a resistive control block, coupled to a first data line and a second data line of a universal serial bus connector charging port, configured to change a level of resistance between said first data line and said second data line; and

a sensing and adjustment block, coupled to said universal serial bus connector charging port, configured to sense a predetermined level of overheating of said universal serial bus connector charging port and cause said resistive control block to increase said level of resistance resulting in said universal serial bus connector charging port to appear as a different type of port.

2. The apparatus of claim **1**, wherein said resistive control block increases said level of resistance to a level associated with a universal serial bus connector standard downstream port.

3. The apparatus of claim **1**, wherein said sensing and adjustment block is further configured to cause an interrupt on a voltage line of said universal serial bus connector charging port when said predetermined level of overheating is sensed.

4. The apparatus of claim **1**, wherein said sensing and adjustment block is further configured to sense a severe overheating of said universal serial bus connector charging port and cause a voltage on a voltage line of said universal serial bus connector charging port to drop to approximately zero.

5. The apparatus of claim **1**, wherein said resistive control block includes a controllable resistor interposed said first data line and said second data line.

6. The apparatus of claim **1**, wherein said resistive control block and said sensing and adjusting block are further configured to employ a thermistor to sense said predetermined level of overheating and to cause said increase of said level of resistance.

7. The apparatus of claim **1**, wherein said sensing and adjustment block includes a temperature sensor to sense said predetermined level of overheating.

8. An apparatus comprising:

a resistive control block coupled to a ground line and an identification line of a universal serial bus connector of a portable device, said identification line coupled to a universal serial bus controller of said portable device, wherein said resistive control block is configured to change a level of resistance between said identification line and said ground line; and

a sensing and adjustment block, coupled to said universal serial bus connector of said portable device, configured